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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,578	12/08/2000	Marcus Lowell Munger	MG-00077	4431

7590 04/09/2003

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EXAMINER
MAHMOUDI, HASSAN

ART UNIT	PAPER NUMBER
2175	3

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/733,578	MUNGER, MARCUS LOWELL	
	Examiner	Art Unit	
	Tony Mahmoudi	2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-6 and 8 is/are rejected.

7)☒ Claim(s) 7 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

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SUPERVISORY PATENT EXAMINER
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Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Remarks

1. The examiner kindly requests the applicant to provide the application serial number, or the patent number and issue date (if a patent has been issued) for the concurrently filed application, identified in the specification with "Docket No. M-00067" (page 1, line 3) in response to this office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen (U.S. patent No. 6,470,490) in view of Masch (U.S. patent No. 5,930,762.)

As to claim 1, Hansen teaches a method (see Abstract) of assigning identifying indicia to objects (see column 4, lines 23-26, and see column 44, lines 12-20, where "identifying indicia" is read on "a unique ID") in multidimensional space (see column 4, lines 28-29) comprising the steps of:

sorting objects initially according to a first dimension of their location in multi-dimensional space (see column 35, lines 11-22);

grouping subsets of objects (see column 61, lines 25-28); and

ordering objects in subsets according to other dimensions of the multidimensional space (see column 35, lines 11-22, and see column 37, lines 15-41.)

Hansen does not teach grouping of objects according to ambiguities in the objects; and ordering ambiguous objects.

Masch teaches a computer aided risk management system (see Abstract), in which he teaches grouping of objects according to ambiguities in the objects (see column 32, line 61 through column 33, line 3); and ordering ambiguous objects (see column 33, lines 3-6, and see column 18, lines 35-43.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hansen to include grouping of objects according to ambiguities in the objects; and ordering ambiguous objects.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hansen by the teachings of Masch, because including grouping of objects according to ambiguities in the objects; and ordering ambiguous objects, would result in the system's ability to identify, store, group, sort, and retrieve ambiguous objects within a multidimensional space. Therefore, objects with ambiguous cluster allocation can be separated and treated as individual entities, either from the very beginning or upon obtaining computational results. At some stage, clusters or other groups that deserve

special attention can be completely "unclustered," and later clustered again, in old or new combinations, as taught by Masch (see column 32, line 67 through column 33, line 6.)

As to claim 2, Hansen as modified teaches wherein the grouping step includes the step of:

determining ambiguities among coordinate values of their location in the multi-dimensional space according to whether separation of objects in a dimension is less than a predetermined threshold value (see Masch, column 12, lines 10-18, and see column 18, lines 56-65.)

As to claim 3, Hansen as modified teaches wherein the determining step includes the step of ascertaining a predetermined threshold value based on known errors of position measurements (see Masch, column 13, lines 11-19.)

As to claim 4, Hansen as modified teaches the method including an initial step of:

selecting as the first dimension of a multidimensional coordinate system that dimension along which separation of objects exhibits the greatest dispersion (see Hansen, column 37, lines 41-50.)

As to claim 5, Hansen as modified teaches wherein the grouping steps includes the step of determining ambiguities among coordinate values according to whether separation of targets is less than any of a plurality of predetermined threshold values (see Masch, column 25, lines 23-65.)

As to claim 6, Hansen as modified teaches wherein the determining step includes the step of ascertaining a predetermined threshold value based on a maximum rate of change of position of one target with respect to any other (see Masch, column 18, lines 44-55.)

As to claim 8, Hansen teaches a method (see Abstract) of sorting indicia corresponding to objects (see column 35, lines 11-22) moving through a multidimensional space (see column 4, lines 28-29) comprising the steps of:

scanning the multidimensional space to detect positions of objects therein (see column 37, lines 44-46);

assigning unique indicia to each detected object (see column 4, lines 23-26, and see column 44, lines 12-20, where "identifying indicia" is read on "a unique ID");

sorting assigned indicia along one coordinate axis of the multidimensional space (see column 35, lines 11-22);

Hansen does not teach grouping into subsets any indicia exhibiting an ambiguity along the coordinate axis; and ordering indicia in subsets according to other coordinate axes of the multidimensional space.

Masch teaches a computer aided risk management system (see Abstract), in which he teaches grouping into subsets any indicia exhibiting an ambiguity along the coordinate axis (see column 32, line 61 through column 33, line 3); and ordering indicia in subsets according to other coordinate axes of the multidimensional space (see column 33, lines 3-6, and see column 18, lines 35-43.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hansen to include grouping into subsets any indicia exhibiting an ambiguity along the coordinate axis; and ordering indicia in subsets according to other coordinate axes of the multidimensional space.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hansen by the teachings of Masch, because including grouping into subsets any indicia exhibiting an ambiguity along the coordinate axis; and ordering indicia in subsets according to other coordinate axes of the multidimensional space, would result in the system's ability to identify, store, group, sort, and retrieve ambiguous objects within a multidimensional space. Therefore, objects with ambiguous cluster allocation can be separated and treated as individual entities, either from the very beginning or upon obtaining computational results. At some stage, clusters or other groups that deserve special attention can be completely "unclustered," and later clustered again, in old or new combinations, as taught by Masch (see column 32, line 67 through column 33, line 6.)

Allowable Subject Matter

4. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, Hansen (U.S. Patent No. 6,470,490) and Masch (U.S. Patent No. 5,930,762), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

ascertaining one of the predetermined threshold values based on maximum rate of change of position of one object with respect to any other;

ascertaining another one of the predetermined threshold values based on the random errors of measurements in positions of the objects, as claimed in claim 7.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

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April 2, 2003

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